



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/672,169	09/26/2003	Adam Tartar Richardson	0-02-141.01	8100

7590 04/13/2007
Kevin D. McCarthy
Roach Brown McCarthy & Gruber, P.C.
420 Main Street - 1620 Liberty Building
Buffalo, NY 14202

EXAMINER

NGUYEN, DINH Q

ART UNIT	PAPER NUMBER
----------	--------------

3752

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/13/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/672,169

Applicant(s)

RICHARDSON ET AL.

Examiner

Dinh Q. Nguyen

Art Unit

3752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-5,7,11-13 and 15-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-5,7,11-13 and 15-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 2-5, 7, 15-20 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-14 of U.S. Patent No. 7,028,782.

Although the conflicting claims are not identical, they are not patentably distinct from each other because of common subject matter, as follows: amended claim 2 of the instant application cites a method of suppressing fire comprising the steps of generating a fire suppressing gas mixture from at least one non-azide solid propellant chemical, the first fire suppressing gas mixture comprising at least a first gas, said first gas comprising nitrogen; and delivering at least said first gas into the space filtering at least a percentage of a second gas from the first fire suppressing gas mixture prior to delivery

into the space, which are fully disclosed in claims 1 and 2 of the '782 patent. Similarly, amended claim 15 of the instant application cites a gas generator that is fully disclosed in claim 9 of the '782 patent

3. Claims 11-13 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-14 of U.S. Patent No. 7,028,782 in view of Galbraith et al.

Claims 1-14 of U.S. Patent No. 7,028,782 teach all the limitations of the claims except for a sensor for detecting a fire. However, Galbraith et al discloses a solid gas generator 14 with a pyrotechnic device 32, and a sensor 30 for suppressing a fire (see figure 1). Therefore, it would have been obvious to one having ordinary skill in the art to have provided the '782 device with a sensor for detecting a fire as suggested by Galbraith et al. Doing so would provide an effective fire suppressing device (see Galbraith column 2, lines 55+).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2-5, 7, 11-13, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holland et al. in view of Kirchoff et al.

Holland et al. teaches all the limitations of the claims except for a filtering out a percentage of a second gas from the first mixture. Kirchoff et al. teaches a solid gas

Art Unit: 3752

generator with a plurality of filters 24/26/28/30 for filtering a percentage of gas (filter 26) and reducing gas temperature (filter screen 28), and a discharge diffuser perforated cap 33. The Kirchoff et al. filters can also be used to filter out any particulate material. Therefore, it would have been obvious to one having ordinary skill in the art to have provided the device of Holland et al with a screen filter as suggested by Kirchoff et al. Doing so would provide a way to filter out unwanted material.

With respect to claims 3-5, at the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to provide the method of Holland et al. in view of Kirchoff et al. with a filter for filtering out a percentage of water vapor, or filtering out a percentage of carbon dioxide, or filtering out a gas, because Application has not disclosed that filtering out a percentage of water vapor, or filtering out a percentage of carbon dioxide, or filtering out a gas provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with either claimed filter or the Holland et al. in view of Kirchoff et al. filters. Therefore, it would have been an obvious matter of design choice to modify the method of Holland et al. in view of Kirchoff et al. to obtain the invention as specified in claims 3-5.

With respect to claims 2-5, 7, the apparatus shown by Holland et al. in view of Kirchoff et al. is capable of performing the method or steps recited in the claims.

Art Unit: 3752

6. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holland et al. in view of Kirchoff et al. as applied to claims 2-5, 7, 11-13, and 19 above, and further in view of Parkinson et al.

Holland et al. in view of Kirchoff et al. teaches all the limitations of the claims except for a pre-packed solid propellant. Parkinson et al. disclose a gas generator for generating and delivering a fire suppressing gas mixture to an enclosed space, comprising a housing 112, a pre-packed solid propellant canister 116 disposed within the housing, a pyrotechnic device 182 for igniting the solid propellant canister and generating a fire suppressing gas mixture by the combustible material 131 flow through a filter 127, and a discharge diffuser 146 for directing the gas mixture within the enclosed space. Therefore, it would have been obvious to one having ordinary skill in the art to have provided the device of Holland et al and Kirchoff et al. with a pre-packed solid propellant as suggested by Parkinson et al. Doing so would provide a convenience gas generator and an effective way to fight fire.

7. Claims 17, 18, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holland et al. in view of Parkinson et al.

Holland et al. teaches all the limitations of the claims except for a pre-packed solid propellant. Parkinson et al. disclose a gas generator for generating and delivering a fire suppressing gas mixture to an enclosed space, comprising a housing 112, a pre-packed solid propellant canister 116 disposed within the housing, a pyrotechnic device 182 for igniting the solid propellant canister and generating a fire suppressing gas mixture by the combustible material 131 flow through a filter 127, and a discharge

Art Unit: 3752

diffuser 146 for directing the gas mixture within the enclosed space. Therefore, it would have been obvious to one having ordinary skill in the art to have provided the device of Holland et al and Kirchoff et al. with a pre-packed solid propellant as suggested by Parkinson et al. Doing so would provide a convenience gas generator and an effective way to fight fire. Furthermore, to provide the device of Holland et al. in view of Parkinson et al. with an 180⁰ or a 360⁰ directional cap is an obvious matter of design choice to a person of ordinary skill in the art.

Response to Arguments

8. Applicant's arguments filed 1/24/07 have been fully considered but they are not persuasive. Applicant alleges that the Holland reference is directed to an aerosol system that containing both gas and solid particulate. The Examiner respectfully traverses the Applicant arguments on the Holland reference. The Holland reference cites a fire suppression device comprising a propellant that producing a large amount of inert gas that blankets the fire (column 3, lines 40+) and a small amount of solid propellant material (column 5, lines 65+), the solid propellant material is a by-product of a solid propellant gas generator, thus a filter is required to filter out the unwanted material such as toxic gases and solid materials, the Applicant invention is a solid propellant gas generator and also relied on filter 13 to filter out a predetermined gas such as gas or water vapor (specification page 7, paragraph 0038). Furthermore, Applicant does not provide any specific characteristics on the gas mixture of the claims (i.e. gas mixture without any trace of solid particles) and the claims are open-ended claims, therefore, the Holland reads on the claimed feature of a gas mixture.

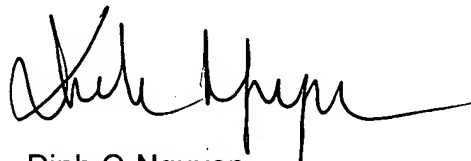
Art Unit: 3752

9. Applicant's arguments with respect to claims 2-5, 7, 11-13, 15-20 have been considered but are moot in view of the new ground(s) of rejection.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dinh Q. Nguyen whose telephone number is 571-272-4907. The examiner can normally be reached on Monday-Thursday 6:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on 571-272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Dinh Q. Nguyen
Primary Examiner
Art Unit 3752

dqn